

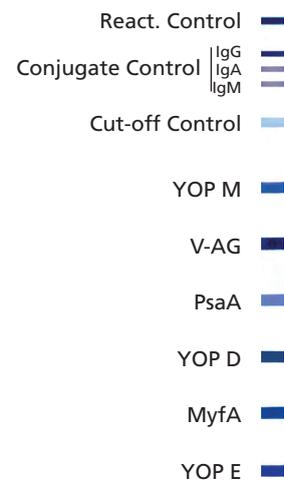


recomLine Yersinia IgG 2.0 recomLine Yersinia IgA [IgM] 2.0

Strip-Immunoassay with antigens produced by recombinant techniques for the detection of IgG, IgM or IgA antibodies directed *Y. enterocolitica* and *Y. pseudotuberculosis*. Detection of species-specific IgG antibodies makes it possible to differentiate between *Y. enterocolitica* and *Y. pseudotuberculosis*.

The enteropathogenic *Yersinia* species, *Yersinia enterocolitica* and *Yersinia pseudotuberculosis*, have a global distribution and have become increasingly important in recent years. These pathogens are transmitted orally either in food (especially meat) or in contaminated water. Typical symptoms of an acute *Y. enterocolitica* infection are watery, sometimes bloody diarrhoea with abdominal pain, vomiting and fever. With *Y. pseudotuberculosis* infection, mesenteric lymphadenitis with terminal ileitis can be observed clinically. Since it is difficult to distinguish this clinical picture from appendicitis, it is also referred to as "pseudoappendicitis". Post infectious complications such as reactive arthritis, erythema nodosum and other rheumatic diseases can occur, especially with HLA-B27 carriers. High and persistent IgA titres against *Yersinia* antigens are characteristic of these patients.

For the *recomLine Yersinia* tests, plasmid-encoded virulence proteins localised on the cell surface (*Yersinia* outer proteins) and adhesins are produced recombinantly in order to differentiate serologically between the species *Y. enterocolitica* and *Y. pseudotuberculosis*. These proteins are only expressed by *Yersinia* strains that are pathogenic to humans. The *recomLine Yersinia* tests make it possible to detect past *Yersinia* infections, and are thus ideally suited for identification of *Yersinia*-induced immunopathological complications and chronic yersiniosis. Detection of IgG and IgA antibodies can be a very useful diagnostic tool if *Yersinia*-induced arthritis is suspected.



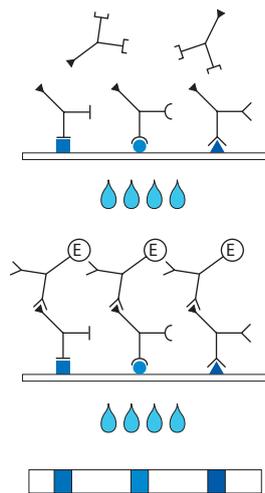
Product Advantages

- **Use of recombinant *Yersinia* antigens**
 - Identification of all pathogenic *Yersinia* by means of *Yersinia* outer proteins (YOPs)
 - Serological differentiation of *Y. enterocolitica* and *Y. pseudotuberculosis* infections is possible for the first time with the use of new species-specific *Yersinia* antigens (PsaA, MyfA)
 - No cross reactions with *Brucella* and other pathogens, as well as no interference caused by LPS
- Easy test procedure; automation possible
- Easy and objective evaluation and documentation by *recomScan* software
- Test procedure and reagents identical in all MIKROGEN strip tests - reagents exchangeable
- Separate detection of IgG, IgM and IgA antibodies - can provide helpful evidence for the clarification of reactive arthritis and other symptoms
- CE label: The *recomLine Yersinia* tests meet the high standard of the EC directive 98/79/EC on in vitro diagnostic medical devices

Yersinia Antigens used

Antigen	Description
YOP M	<i>Yersinia</i> outer protein
V-AG	<i>Yersinia</i> virulence factor
PsaA	Adhesin (specific for <i>Y. pseudotuberculosis</i>)
YOP D	<i>Yersinia</i> outer protein
MyfA	Adhesin (specific for <i>Y. enterocolitica</i>)
YOP E	<i>Yersinia</i> outer protein

Test Principle and Procedure



- 1st Incubation** A test strip loaded with *Yersinia* antigens is incubated with diluted serum or plasma in a dish for **1 hour**.
- wash 3 times
- 2nd Incubation** Peroxidase conjugated anti-human antibodies (IgG, IgA or IgM specific) are added. Incubate for **45 minutes**.
- wash 3 times
- Color reaction** **8 minutes** after addition of the coloring solution, insoluble colored bands develop at the sites on the test strips occupied by antibodies.

Evaluation

Diagnostic Sensitivity

recomLine Yersinia	Positive preliminary findings in two reference tests		
	IgG (n = 122)	IgA (n = 68)	IgM (n = 61)
negative	0	2	0
borderline	0	0	0
positive	122	66	61
Sensitivity	100 %	97 %	100 %

Diagnostic Specificity

recomLine Yersinia	Negative preliminary findings in two reference tests		
	IgG (n = 95)	IgA (n = 134)	IgM (n = 109)
negative	95	134	108
borderline	0	0	0
positive	0	0	1
Specificity	100 %	100 %	99 %

Differentiation between *Y. enterocolitica* and *Y. pseudotuberculosis* by detecting species-specific IgG antibodies

recomLine Yersinia	defined positive <i>Y. enterocolitica</i> * samples (n = 59)	defined positive <i>Y. pseudotuberculosis</i> ** samples (n = 63)
positive for <i>Y. enterocolitica</i> (MyfA-Antigen)	41	0
positive for <i>Y. pseudotuberculosis</i> (PsaA-Antigen)	0	51
Differentiation possible in % of samples	69 %	81 %

* Classified as *Y. enterocolitica* samples with a positive Widal test result

** Classified as *Y. pseudotuberculosis* samples with a positive culture and PCR results

Article-No

- 4672 **recomLine Yersinia IgG 2.0**
Reagents for 20 determinations
- 4673 **recomLine Yersinia IgA [IgM]* 2.0**
Reagents for 20 determinations
- 4676 **recomLine Yersinia IgG 2.0**
Reagents for 200 determinations
- 4677 **recomLine Yersinia IgA [IgM]* 2.0**
Reagents for 200 determinations
- 10015 **Line - anti-Human IgM-Konjugat, 500 µl**
* [] optional available as additional reagent

Storage

At +2°C - +8°C